

Appl. No. 09/402,732
Response to Office Action of July 14, 2004

Remarks

Following entry of the above amendments, claims 1, 14, 24, 25 and 29-36 are pending in the application. Claims 29-36 are new. Reconsideration and allowance of all claim remaining in the application is earnestly solicited.

Claims 1-10 and 14-28 were rejected as allegedly indefinite. The Examiner maintains that the language "each segment" has an uncertain meaning. The language is not present in the amended claims.

Claims 1-10 and 14-25 have been rejected for lack of enabling disclosure. While not necessarily agreeing with the rejection, and in an effort to expedite allowance, the claims have been amended to recite compositions and methods utilizing (a) the peptide RPP, (b) the peptide SEQ ID NO:6, (c) the peptide RPP heterodimer and (d) the peptide RPP MAP-4.

Claim 14 is directed to a method utilizing compounds (a) – (d) for preventing thrombin-induced platelet aggregation mediated by cleavage of a thrombin receptor on platelets. Claims 24 and 25 are directed to pharmaceutical compositions comprising compounds (b), (c) or (d).

The Examiner agrees that the specification enables that the use of compounds (a) – (d) for inhibiting thrombin-induced platelet aggregation (Detailed Action, page 3). Thus, claim 14 and its dependent claims are believed allowable. The same is true of composition claims 24 and 25. For the following reasons, it is respectfully submitted that the specification is also enabling for claim 1, as amended.

Claim 1 is directed to a method utilizing compounds (a) – (d) for inhibiting thrombin-induced cell activation mediated by cleavage of a thrombin receptor on the cells. It is respectfully submitted that the specification enables the claimed method. Thrombin-induced activation of platelets and various cells, such as endothelial cells, brain cells, fibroblasts, smooth muscle cells, or other cells expressing the thrombin receptor, is described throughout the specification as filed

The peptides of the present invention serve to inhibit thrombin-induced cell activation, where the cell activation proceeds by a mechanism of cleavage of a thrombin, by blocking the cleavage of the thrombin receptor on the affected cells. The specification demonstrates this mechanism, by illustrating that peptides of the invention act by binding to the thrombin receptor cleavage site. See Example 6, page 34. Whether the cell is a platelet

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as opposed to another thrombin-receptor expressing cell type (e.g., fibroblast or endothelial cell), makes no difference to the action of the peptides of the invention on the cell. The compounds of the invention inhibit thrombin cleavage, and thereby inhibit cell activation, regardless of whether the affected thrombin receptor-expressing cell is a platelet or another cell type. For example, peptides of the invention inhibited thrombin-induced calcium mobilization of endothelial cells. See Example 7, page 34. Calcium-induced mobilization is one form of activation of an endothelial cell.

Therefore, the specification as filed provides sufficient guidance to allow one of ordinary skill in the art to make and use compounds for inhibiting thrombin-induced cell activation. Claim 1, as amended, is therefore believed allowable.

Based on the foregoing, all claims are in condition for allowance. An early and favorable action toward that end is earnestly solicited.

Respectfully submitted,

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